DH-SD59225U-HNI

2MP 25x Starlight IR PTZ Network Camera



- 1/2.8” 2Megapixel STARVIS™ CMOS
- Powerful 25x optical zoom
- Starlight technology
- H.265 Encoding
- Max. 50/60fps@1080P
- Auto-tracking and IVS
- Support PoE+
- IR distance up to 150m
- IP66



System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera can provide large monitoring range and great detail. The camera has very excellent low light performance due to adopting the latest starlight technology. The camera is equipped with smooth control, high quality image and good protection, which make it can meet most of the requirements of video surveillance applications.

Functions

Starlight Technology
For challenging low-light applications, Dahua’s Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

Wide Dynamic Range
The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking
This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

Smart H.265+
Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.

PFA Technology
PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

Environmental
Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -40 °C to +70 °C (-40 °F to +158 °F) with 95% humidity. Subjected to rigorous dust and water immersion tests and certified to the IP66 Ingress Protection rating makes it suitable for demanding outdoor applications.

Protection
This camera suits even the harsh conditions for outdoor applications. TVS 6KV lightning protection rating provides lightning protection, surge protection and voltage transient protection.

Interoperability
The camera conforms to the ONVIF (Open Network Video Interface Forum) specifications, ensuring interoperability between network video products regardless of manufacturer.

Technical Specification

Camera

Image Sensor	1/2.8" STARVIS™ CMOS
Effective Pixels	1920(H) x 1080(V), 2 Megapixels
RAM/ROM	1024M/128M
Scanning System	Progressive
Electronic Shutter Speed	1/1s~1/30,000s
Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)
IR Distance	Distance up to 150m (492ft)
IR On/Off Control	Auto/Manual
IR LEDs	4

Lens

Focal Length	4.8mm~120mm
Max. Aperture	F1.6 ~ F4.4
Angle of View	H: 62.8° ~ 2.6°
Optical Zoom	25x
Focus Control	Auto/Manual
Close Focus Distance	100mm~ 1000mm

DORI Distance

*Note: The DORI distance is a "general proximity" of distance which makes it easy to pinpoint the right camera for your needs. The DORI distance is calculated based on sensor specification and lab test result according to EN 62676-4 which defines the criteria for Detect, Observe, Recognize and Identify respectively.

Detect	Observe	Recognize	Identify
1613m(5292ft)	646m(2119ft)	323m(1060ft)	161m(528ft)

PTZ

Pan/Tilt Range	Pan: 0° ~ 360° endless; Tilt: -15° ~ 90°,auto flip 180°
Manual Control Speed	Pan: 0.1° ~300° /s; Tilt: 0.1° ~200° /s
Preset Speed	Pan: 400° /s; Tilt: 300° /s
Presets	300
PTZ Mode	5 Pattern, 8 Tour, Auto Pan ,Auto Scan
Speed Setup	Human-oriented focal Length/ speed adaptation
Power up Action	Auto restore to previous PTZ and lens status after power failure
Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
Protocol	DH-SD

Intelligence

Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection, IP address conflict, Illegal Access, Storage anomaly
Auto Tracking	Support
IVS	Tripwire, Intrusion, Abandoned/Missing
Advanced Intelligent Functions	Face Detection, Heat Map

Video

Compression	H.265+/H.265/H.264+/H.264/MJPEG(Sub Stream)
Streaming Capability	3 Streams
Resolution	1080P(1920×1080)/720P(1280×720)/ D1(704×576/704×480)/CIF(352×288/352×240)
Frame Rate	Main stream: 1080P/1.3M/ 720P(1~50/60fps)
	Sub stream1: D1/CIF(1 ~ 25/30fps)
	Sub stream2: 1080P/1.3M/720P/D1/CIF (1~25/30fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.265/H.264: 448K ~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
Backlight Compensation	BLC / HLC / WDR (120dB)
White Balance	Auto, ATW, Indoor, Outdoor, Manual
Gain Control	Auto / Manual
Noise Reduction	Ultra DNR (2D/3D)
Motion Detection	Support
Region of Interest	Support
Electronic Image Stabilization (EIS)	Support
Defog	Support
Digital Zoom	16x
Flip	180°
Privacy Masking	Up to 24 areas

Audio

Compression	G.711a/G.711Mu/AAC/G.722 / G.726/G.729/ MPEG2-L2

Network

Ethernet	RJ-45 (10Base-T/100Base-TX)
Protocol	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS,PPPOE,DDNS,FTP, IP Filter,QoS,Bonjour,802.1x
Interoperability	ONVIF Profile S&G, API
Streaming Method	Unicast / Multicast
Max. User Access	20 users
Edge Storage	NAS (Network Attached Storage),Local PC for instant recording, Micro SD card 256GB
Web Viewer	IE, Chrome, Firefox, Safari
Management Software	Smart PSS, DSS, DMSS
Smart Phone	IOS, Android

Certifications	
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB,ANSI C63.4- 2014 UL: UL60950-1+CAN/CSA C22.2,No.60950-1
Interface	
Video Interface	N/A
RS485	N/A
Audio I/O	1/1
Alarm I/O	2/1
Electrical	
Power Supply	DC24V/2.5A(±25%), PoE+(802.3at)
Power Consumption	13W,23W (IR on)
Environmental	
Operating Conditions	-40°C ~ 70°C (-40°F ~ +158°F) / Less than 95% RH
Ingress Protection	IP66
Vandal Resistance	N/A
Construction	
Casing	Metal
Dimensions	Φ186(mm) x 309(mm)
Net Weight	3.9kg(8.60lb)
Gross Weight	7.2kg(15.87lb)

Ordering Information

Type	Part Number	Description
2MP PTZ Camera	DH-SD59225U-HNI	2MP 25x Starlight IR PTZ Network Camera, WDR, PAL
	DH-SD59225UN-HNI	2MP 25x Starlight IR PTZ Network Camera, WDR, NTSC
	SD59225U-HNI	2MP 25x Starlight IR PTZ Network Camera, WDR, PAL
	SD59225UN-HNI	2MP 25x Starlight IR PTZ Network Camera, WDR, NTSC
Accessories	PFB300S	Wall Mount
	PFA110	Mount Adapter
	DC24V/2.5A	Power Adapter
	PFA140	Power Box
	PFB300C	Ceiling Mount
	PFA120	Water-proof Junction Box
	PFA150	Pole Mount
	PFA151	Corner Mount
	PFB303S	Parapet Mount

Accessories

Included:



PFB300S
Wall Mount



PFA110
Mount Adapter



DC24V/2.5A
Power Adapter

Optional:



PFA140
Power Box



PFB300C
Ceiling Mount



PFA120
Junction Box



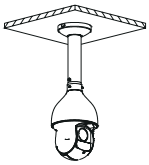
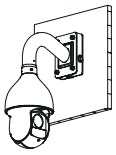
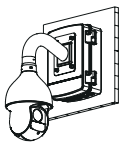
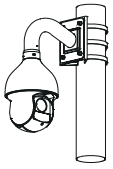
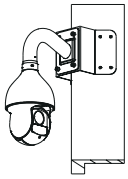
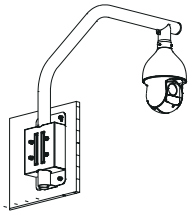
PFA150
Pole Mount



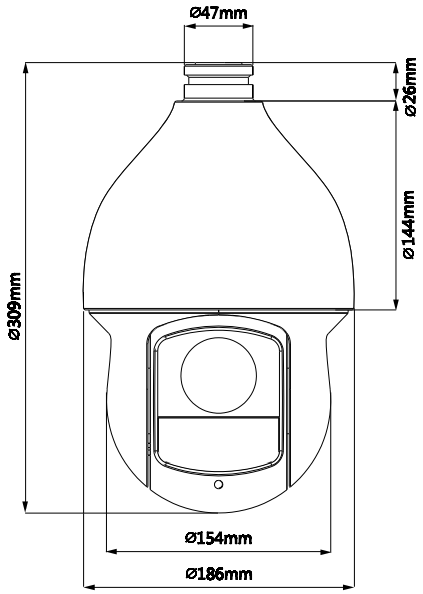
PFA151
Corner Mount



PFB303S
Parapet Mount

Ceiling Mount	Junction Mount
PFA110 + PFB300C	PFA110 + PFB300S + PFA120
	
Power Box Mount	**Pole Mount**
PFA110 + PFB300S + PFA140	PFA110 + PFB300S + PFA150
	
Corner Mount	**Parapet Mount**
PFA110 + PFB300S + PFA151	PFA110 + PFB303S
	

Dimensions (mm)



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